

IN THE CLAIMS

Claims 1-21 (Canceled).

22. (New) A communication system controller comprising:

interface circuitry for exchanging, with an information transmission device, at least one of information requesting setup of a call and parameters for configuring the information transmission device;

at least one processor communicatively coupled to the interface circuitry; and

operational software executable by the at least one processor, the operational software causing the at least one processor to produce the parameters for configuring the information transmission device based upon the information requesting setup of a call, the information transmission device thereby communicatively coupling one of a plurality of communication networks to another of the plurality of communication networks.

23. (New) The controller of claim 22 wherein the plurality of communication networks comprises a packet network.

24. (New) The controller of claim 23 wherein the packet network communicates using an Internet protocol (IP).

25. (New) The controller of claim 24 wherein the Internet protocol (IP) comprises the transmission control protocol (TCP)/Internet protocol (IP).

26. (New) The controller of claim 23 wherein the packet network comprises a wireless network.

27. (New) The controller of claim 22 wherein the plurality of communication networks comprises a conventional telephone switching network.

28. (New) The controller of claim 27 wherein the conventional telephone switching network communicates using analog signals.

29. (New) The controller of claim 22 further comprising a packet network interface for communicating using a packet protocol.

30. (New) The controller of claim 29 wherein the packet protocol is compliant with an Ethernet protocol.

31. (New) The controller of claim 29 wherein the packets exchanged via the packet network interface comprise digitized voice information.

32. (New) The controller of claim 29 wherein the packets exchanged via the packet network interface comprise non-voice data.

33. (New) The controller of claim 32 wherein at least a portion of the non-voice data is unrelated to the exchange of digitized voice information.

34. (New) The controller of claim 22 wherein the operational software is capable of determining a routing for the requested call.

35. (New) The controller of claim 34 wherein the routing is determined based upon a cost of use of a communication network.

36. (New) The controller of claim 34 wherein the routing is based upon predefined call routing information.

37. (New) The controller of claim 22 wherein the information requesting setup of a call comprises information related to telephony signals received by the information transmission device.

38. (New) The controller of claim 37 wherein the telephony signals received comprise at least one of dual tone multi-frequency (DTMF) signals, dial tone, a ring signal, on-hook, off-hook, and call progress tones.

39. (New) The controller of claim 22 wherein the parameters for configuring the information transmission device comprise information related to telephony signals generated by the information transmission device.

40. (New) The controller of claim 39 wherein the telephony signals generated by the information transmission device comprise at least one of dual tone multi-frequency (DTMF) signals, dial tone, a busy signal, and a ringing signal.

41. (New) The controller of claim 22 wherein the parameters for configuring the information transmission device comprise information related to the conversion of digitized voice information into an analog voice signal, and an analog voice signal into digitized voice information.

42. (New) The controller of claim 22 wherein the parameters for configuring the information transmission device comprise information related to the buffering of digitized voice information for a predefined period of time to minimize gaps in an analog voice signal.

43. (New) The controller of claim 22 wherein the parameters for configuring the information transmission device comprise information related to at least one of a battery supply, over-voltage protection, ringing current, tone generation, tone detection, two wire to four wire conversion, and test functionality.

44. (New) The controller of claim 22 wherein the operational software is capable of reducing the quantity of digitized voice information exchanged via the information transmission device, by changing the packetization of digitized voice information when voice activity on one of the plurality of communication networks falls below a predetermined level.

45. (New) The controller of claim 22 wherein the interface circuitry is capable of exchanging digitized voice information with the information transmission device.

46. (New) The controller of claim 22 wherein the communication system controller and the information transmission device are located within the same housing.

47. (New) A communication system controller comprising:
interface circuitry capable of providing configuration information to a system supporting the communicative coupling of one of a plurality of communication networks to another of the plurality of communication networks based upon the configuration information;
storage capable of containing operational software and call routing information; and
at least one processor communicatively coupled to the interface circuitry, the at least one processor capable of accessing the operational software and call routing information, the operational software functioning at least to cause the at least one processor to produce the configuration information based upon call setup information and the call routing information.

48. (New) The controller of claim 47 wherein the plurality of communication networks comprises a packet network.

49. (New) The controller of claim 48 wherein at least a portion of the packets transported by the packet network comprise digitized voice information.

50. (New) The controller of claim 48 wherein the packet network uses an Internet protocol (IP).

51. (New) The controller of claim 50 wherein the Internet protocol comprises the transmission control protocol (TCP)/Internet protocol (IP).

52. (New) The controller of claim 47 wherein the plurality of communication networks comprises a conventional telephone switching network.

53. (New) The controller of claim 52 wherein the conventional telephone switching network uses analog signals.

54. (New) The controller of claim 47 wherein the call setup information is received via one of the plurality of communication networks.

55. (New) The controller of claim 47 further comprising:
a network interface adapted to communicate using a wired network.

56. (New) The controller of claim 55 wherein the wired network comprises an Ethernet compatible network.

57. (New) The controller of claim 55 wherein the call setup information is received via the wired network.

58. (New) The controller of claim 47 wherein the call setup information comprises a destination address.

59. (New) The controller of claim 47 wherein the call routing information comprises at least one association of a destination address and a call route.

60. (New) A machine-readable storage having stored thereon a computer program having a plurality of code sections for implementing a communication system controller, the code sections executable by a machine for causing the machine to perform the operations comprising:

- storing routing information received from a user at a first location;
- accepting a call setup request from the user via one of a plurality of communication networks, the call setup request comprising a destination address corresponding to a second location;
- determining routing information based upon at least one of the call setup request and the stored routing information for the first user;
- generating configuration information using at least one of the call setup request and the routing information; and
- providing the configuration information to a device capable of communicatively coupling the user via one of a plurality of communication networks to the second location via another of the plurality of communication networks in order to establish the requested call.

61. (New) The machine-readable storage of claim 60 wherein the plurality of communication networks comprises a packet network.

62. (New) The machine-readable storage of claim 61 wherein the packet network communicates using an Internet protocol (IP).

63. (New) The machine-readable storage of claim 62 wherein the Internet protocol (IP) comprises the transmission control protocol (TCP)/Internet protocol (IP).

64. (New) The machine-readable storage of claim 61 wherein the packet network comprises a wireless network.

65. (New) The machine-readable storage of claim 60 wherein the plurality of communication networks comprises a conventional telephone switching network.

66. (New) The machine-readable storage of claim 65 wherein the conventional telephone switching network communicates using analog signals.

67. (New) The machine-readable storage of claim 60 wherein the determining comprises:

determining whether routing information corresponding to the destination address is available using the stored routing information and the destination address;

prompting the user for routing information, if routing information corresponding to the destination address is not available; and

refraining from prompting the user, if routing information corresponding to the destination address is available.

68. (New) The machine-readable storage of claim 60 further comprising:
sending to the second location a call setup request.

69. (New) The machine-readable storage of claim 60 further comprising:
receiving from the second location acceptance of a call setup request.